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longitudinally opposite one another, some of the undulating bands having connecting elements extending from the proximal end region and the distal end region.

37. (Amended) The stent of claim 36 wherein the interconnected struts having a length, the length of the struts of the undulating circumferential bands at each end of the stent being different than the length of the struts of the undulating circumferential bands positioned therebetween.

38. (Amended) The stent of claim 36 wherein each undulating circumferential band comprises a pattern of interconnected struts, the pattern of at least one circumferential band being different than the pattern of adjacent undulating circumferential bands.

39. (Amended) The stent of claim 36 wherein the stent is expandable from an unexpanded state to an expanded state and each undulating circumferential band comprises a pattern of interconnected struts, in the unexpanded state at least a portion of the interconnected struts being parallel to one another.

43. (Amended) A stent comprising:

a plurality of adjacent undulating circumferential bands, each of the undulating circumferential bands consisting of a plurality of interconnected struts, each strut having a first end and a second end, only at the ends are adjacent struts connected together, at the first end each strut connected only to one adjacent strut and at the second end each strut connected only to one adjacent strut, each of the undulating circumferential bands having a plurality of end portions; and

a plurality of connectors, each connector joining two adjacent undulating circumferential bands, each connector having a first end and a second end and a portion extending at an oblique angle relative to a longitudinal axis of the stent, the first end extending from a single end portion of one of the undulating circumferential bands, the second end extending from a single end portion of a undulating circumferential band adjacent thereto.

44. (Amended) The stent of claim 43 wherein the interconnected struts having a length, the length of the struts of the undulating circumferential bands at each end of the stent being

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different than the length of the struts of the undulating circumferential bands positioned therebetween.

45. (Amended) The stent of claim 43 wherein each undulating circumferential band comprises a pattern of interconnected struts, the pattern of at least one circumferential band being different than the pattern of adjacent undulating circumferential bands.

D² 46. (Amended) The stent of claim 43 wherein the stent is expandable from an unexpanded state to an expanded state and each undulating circumferential band comprises a pattern of interconnected struts, in the unexpanded state at least a portion of the interconnected struts being parallel to one another.

Please add new claims 50-88 as follows:

~~50. (New) A tubular, flexible, expandable stent having a proximal end and a distal end and comprising:~~

D³ a plurality of cylindrical shaped segments aligned on a common longitudinal axis to define a generally tubular stent body each segment having a proximal end and a distal end, each segment being defined by an undulating pattern of interconnected struts to define the periphery of the stent body, circumferentially adjacent struts interconnected at only one end of the struts; and

a plurality of interconnecting elements, each interconnecting element extending from an interconnected end of adjacent struts on one segment to a circumferentially offset interconnected end of adjacent struts on an adjacent segment, each interconnecting element having a proximal end and a distal end, the distal end offset in a circumferential direction and in a longitudinal direction from the proximal end;

the stent including cylindrical shaped segments which have interconnecting elements extending from the distal end of the segment and from the proximal end of the segment, the interconnecting elements which extend from the distal end of the segment connected to the interconnected elements which extend from the proximal end of the segment via three struts of the segment;

whereby, upon expansion of the stent, struts of adjacent segments are displaced relative to each other

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about the periphery of the stent body to accommodate longitudinal flexing of the stent within the segments and without interference between adjacent segments.

51. (New) The stent of claim 50 wherein the stent is made of metal.
52. (New) The stent of claim 51 wherein the metal is a shape memory alloy.
53. (New) The stent of claim 51 wherein the stent forms a thin-walled tubular member.
54. (New) The stent of claim 50 formed as a self-expanding configuration.
55. (New) The stent of claim 50 formed as a mechanically expandable configuration.
56. (New) The stent of claim 50 wherein the interconnecting elements between adjacent segments are of the same length.
57. (New) The stent of claim 50 wherein the stent further includes end segments and intermediate segments, each of the struts of the end segments being longer than the struts of the intermediate segments of the stent.
58. (New) The stent of claim 50 wherein the circumferentially adjacent struts are substantially parallel.
59. (New) A tubular, flexible, expandable stent, comprising:
- a plurality of cylindrical shaped segments aligned on a common longitudinal axis, each segment having a proximal end and a distal end and being defined by a member formed in a closed undulating pattern of interconnected struts to define the periphery of the expandable stent, and in which circumferentially adjacent struts are interconnected at only one end of the struts and
- a plurality of interconnecting elements each extending from one segment to an adjacent segment, each segment having interconnecting elements extending from the distal end of the segment and from the proximal end of the segment, the interconnecting elements which extend from the distal end of the segment connected to the interconnected elements which extend from the proximal end of the segment via three struts of the segment,
- each interconnecting element having a proximal end and a distal end, the distal end offset in a circumferential direction and in a longitudinal direction from the proximal end, the interconnecting elements oriented non-parallel to the common longitudinal axis,

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the stent including interconnecting elements which are circumferentially adjacent one another and are separated from one another by at least six struts on each of the cylindrical shaped segments from which they extend;

the stent constructed and arranged such that upon expansion of the stent, struts of the adjacent segments are displaced relative to each other about the periphery of the stent body to accommodate longitudinal flexing of the stent within the segments and without interference between adjacent segments.

60. (New) The stent of claim 59 wherein each interconnecting element is substantially straight.

61. (New) The stent of claim 50 wherein each interconnecting element is substantially straight.

62. (New) The stent of claim 50 wherein the stent further includes end segments and intermediate segments, each of the struts of the end segments being longer than the struts of the intermediate segments of the stent.

63. (New) The stent of claim 50 comprising interconnecting elements which are circumferentially adjacent one another and are separated from one another by at least six struts on each of the cylindrical shaped segments from which they extend.

64. (New) The stent of claim 50 comprising interconnecting elements which are circumferentially adjacent one another and are separated from one another by six struts on each of the cylindrical shaped segments from which they extend.

65. (New) The stent of claim 59 comprising interconnecting elements which are circumferentially adjacent one another and are separated from one another by six struts on each of the cylindrical shaped segments from which they extend.

66. (New) A tubular, flexible, expandable stent having a proximal end and a distal end and comprising:

a plurality of cylindrical shaped segments aligned on a common longitudinal axis to define a generally tubular stent body, each segment being defined by an undulating pattern of interconnected struts to define the periphery of the stent body, circumferentially adjacent struts interconnected at only one end of the struts; and

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a plurality of interconnecting elements, each interconnecting element extending from an interconnected end of circumferentially adjacent struts on one segment to an interconnected end of circumferentially adjacent struts on an adjacent segment, each interconnecting element having a proximal end and a distal end, the distal end being offset in both a circumferential direction and a longitudinal direction from the proximal end;

the stent including cylindrical shaped segments which have interconnecting elements extending from the distal end of the segment and from the proximal end of the segment, the interconnecting elements which extend from the distal end of the segment connected to the interconnected elements which extend from the proximal end of the segment via three struts of the segment, interconnecting elements which are circumferentially adjacent one another separated from one another by six struts on each of the cylindrical shaped segments from which they extend.

67. (New) A substantially cylindrically shaped stent having a longitudinal axis,

the stent comprising a plurality of closed undulating segments, the undulating segments extending circumferentially about the stent,

each undulating segment having a first end and a second end, the first end characterized by a plurality of end portions separated by gaps, the second end characterized by a plurality of end portions separated by gaps, the gaps on the first end circumferentially offset from the gaps on the second end and the end portions on the first end circumferentially offset from the end portions on the second end,

one of the undulating segments located at a first end of the stent having a plurality of interconnecting elements extending from one end of the segment only to a segment adjacent thereto and one of the undulating segments located at a second end of the stent having a plurality of interconnecting elements extending from one end of the undulating segment only to an undulating segment adjacent thereto,

there being a plurality of intermediate undulating segments which are located between the segments at the first and second ends of the stent, each intermediate undulating segment having interconnecting elements extending from the first and second ends of the

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intermediate undulating segments, the interconnecting elements extending from less than all of the end portions at both ends of the intermediate undulating segments,

each interconnecting element extending from an end portion of an undulating segment to an end portion of an undulating segment adjacent thereto,

each interconnecting element having a proximal end and a distal end, the distal end being offset in both a circumferential direction and a longitudinal direction from the proximal end.

68. (New) A tubular, flexible, expandable stent having a proximal end and a distal end and comprising:

a plurality of cylindrical shaped segments aligned on a common longitudinal axis to define a generally tubular stent body each segment having a proximal end and a distal end, each segment being defined by an undulating pattern of interconnected struts to define the periphery of the stent body, circumferentially adjacent struts interconnected at only one end of the struts; and

a plurality of interconnecting elements, each interconnecting element extending from an interconnected end of adjacent struts on one segment to a circumferentially offset interconnected end of adjacent struts on an adjacent segment, each interconnecting element having a proximal end and a distal end, the distal end offset in a circumferential direction and in a longitudinal direction from the proximal end;

the stent including cylindrical shaped segments which have interconnecting elements extending from the distal end of the segment and from the proximal end of the segment, the interconnecting elements which extend from the distal end of the segment connected to the interconnected elements which extend from the proximal end of the segment via three struts of the segment;

whereby, upon expansion of the stent, struts of adjacent segments are displaced relative to each other about the periphery of the stent body to accommodate longitudinal flexing of the stent within the segments and without interference between adjacent segments.

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69. (New) The stent of claim 68 wherein the stent is made of metal.
70. (New) The stent of claim 69 wherein the metal is a shape memory alloy.
71. (New) The stent of claim 68 wherein the stent forms a thin-walled tubular member.
72. (New) The stent of claim 68 formed as a self-expanding configuration.
73. (New) The stent of claim 68 formed as a mechanically expandable configuration.
74. (New) The stent of claim 68 wherein the interconnecting elements between adjacent segments are of the same length.
75. (New) The stent of claim 68 wherein the stent further includes end segments and intermediate segments, each of the struts of the end segments being longer than the struts of the intermediate segments of the stent.
76. (New) The stent of claim 68 wherein the circumferentially adjacent struts are substantially parallel.
77. (New) A tubular, flexible, expandable stent, comprising:
a plurality of cylindrical shaped segments aligned on a common longitudinal axis, each segment being defined by a member formed in a closed undulating pattern of interconnected struts to define the periphery of the expandable stent, and in which circumferentially adjacent struts are interconnected at only one end of the struts and
a plurality of interconnecting elements each extending from one segment to an adjacent segment,
each interconnecting element having a proximal end and a distal end, the distal end circumferentially and longitudinally offset from the proximal end,
the stent including interconnecting elements which are circumferentially adjacent one another and are separated from one another by at least six struts on each of the cylindrical shaped segments from which they extend;
the stent constructed and arranged such that upon expansion of the stent, struts of the adjacent segments are displaced relative to each other about the periphery of the stent body to accommodate longitudinal flexing of the stent within the segments and without interference between adjacent segments.

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78. (New) The stent of claim 77 wherein each interconnecting element is substantially straight.
79. (New) The stent of claim 68 wherein each interconnecting element is substantially straight.
80. (New) The stent of claim 77 wherein the stent further includes end segments and intermediate segments and the end segments of the stent include longer struts than the intermediate segments of the stent.
81. (New) The stent of claim 68 comprising interconnecting elements which are circumferentially adjacent one another and are separated from one another by at least six struts on each of the cylindrical shaped segments from which they extend.
82. (New) The stent of claim 68 comprising interconnecting elements which are circumferentially adjacent one another and are separated from one another by six struts on each of the cylindrical shaped segments from which they extend.
83. (New) The stent of claim 77 comprising interconnecting elements which are circumferentially adjacent one another and are separated from one another by six struts on each of the cylindrical shaped segments from which they extend.
84. (New) A tubular, flexible, expandable stent having a proximal end and a distal end and comprising:

a plurality of cylindrical shaped segments aligned on a common longitudinal axis to define a generally tubular stent body, each segment being defined by an undulating pattern of interconnected struts to define the periphery of the stent body, circumferentially adjacent struts interconnected at only one end of the struts; and

a plurality of interconnecting elements, each interconnecting element extending from an interconnected end of circumferentially adjacent struts on one segment to an interconnected end of circumferentially adjacent struts on an adjacent segment, each interconnecting element having a proximal end and a distal end, the distal end circumferentially and longitudinally offset from the proximal end;

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the stent including cylindrical shaped segments having at least three struts extending between each interconnecting element extending distally from the cylindrical shaped segment and the nearest interconnecting element extending proximally from the cylindrical shaped segment, interconnecting elements which are circumferentially adjacent one another separated from one another by six struts on each of the cylindrical shaped segments from which they extend.

85. (New) A tubular, flexible, expandable stent having a proximal end and a distal end and comprising:

a plurality of cylindrical shaped segments aligned on a common longitudinal axis to define a generally tubular stent body, each segment having a proximal end and a distal end, each segment being defined by an undulating pattern of interconnected struts to define the periphery of the stent body, circumferentially adjacent struts interconnected at only one end of the struts; and

a plurality of interconnecting elements, each interconnecting element extending from an interconnected end of adjacent struts on one segment to an interconnected end of adjacent struts on an adjacent segment, each interconnecting element having a proximal end and a distal end, the distal end offset in a circumferential direction and in a longitudinal direction from the proximal end;

the stent including cylindrical shaped segments which have interconnecting elements extending from the distal end of the segment and from the proximal end of the segment.

86. (New) The stent of claim 85 further comprising a proximal most cylindrical shaped segment, the proximal most cylindrical shaped segment at least partially defining the proximal end of the stent, the proximal most cylindrical shaped segment having interconnecting elements extending from the distal end of the proximal most cylindrical shaped segment connected to the interconnected elements which extend from the proximal end of the cylindrical shaped segment adjacent thereto.

87. (New) The stent of claim 86 further comprising a distal most cylindrical shaped segment, the proximal most cylindrical shaped segment at least partially defining the distal end of the stent, the distal most cylindrical shaped segment having interconnecting elements extending from the proximal